SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC

U.S. Department of Transportation

Federal Aviation Administration

CE-05-88
September 30, 2005

http://www.faa.gov/aircraft/safety/alerts/SAIB

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises you, registered owners and operators of **Cirrus Design Corporation (CDC) SR20 or SR22 airplanes**, of possible failure of the nose gear strut assembly. Failure of this assembly could result in separation of the nose wheel and fork from the strut after a hard landing.

Background

In April 2004, an accident occurred involving a CDC model SR22 causing loss of the nose wheel assembly upon landing. Cirrus determined that a fillet weld attaching the strut tube to the nose gear spindle had failed because of poor penetration. Investigation determined that the substandard weld was from only one vendor. The welding problem was corrected and Cirrus issued a mandatory Service Bulletin (SB) to replace the nose gear strut for affected SR22 aircraft. Since that time, Cirrus testing and a similar accident with a model SR20 on March 10, 2005, prompted Cirrus to issue a second mandatory service bulletin for affected SR20 aircraft.

Recommendation

We recommend that you review the attached CDC mandatory service bulletins, SB 2X-32-11, issued Aug 8, 2005 (for SR20s); and SB 2X-32-10 R1, issued Jun 28, 2005 (for SR22s) for serial number effectively. If your aircraft is affected, you should have the SB performed within the next 50 days.

For Further Information Contact

Wesley Rouse, Aerospace Engineer, FAA Chicago Aircraft Certification, 2300 E. Devon, Des Plaines, IL 60018; phone (847) 294-8113; email: wess.rouse@faa.gov

Service Bulletin

SB 2X-32-10 R1

Issued: 20 Aug 2004
Revised: 28 Jun 2005

Model SR22

ATA 32-20: Nose Landing Gear
Nose Gear Strut Inspection and Replacement

COMPLIANCE

Mandatory: Cirrus Design considers this Service Bulletin to be MANDATORY. Accomplish this Service Bulletin within the next 50 flight hours. Compliance time begins upon receipt of this Service Bulletin.

This Service Bulletin was revised to add nose landing gear assembly P/N 14082-004 to the kit materials, update torque specifications for the nose wheel fork assembly spindle nut, and to clarify the installation of additional washers to eliminate gaps between nose landing gear strut and engine mount.

Operators who have successfully complied with the original release of this Service Bulletin, dated 20 August 2004, need take no further action.

EFFECTIVITY

Cirrus Design SR22 serial numbers 0854 through 0921.

APPROVAL

FAA approval has been obtained on all technical data in this Service Bulletin that affects type design.

PURPOSE

Cirrus Design recently made a supplier change for the manufacturing of its nose landing gear strut assembly. During the transition to the new manufacturer, process changes may have affected the reliability of this assembly at higher loads. Failure of this assembly could result in separation of the nose wheel and fork from the strut after a hard landing.

This Service Bulletin is being issued to require inspection of the assembly on all affected aircraft to determine if the gear must be replaced immediately or if the replacement can be deferred up to the next annual inspection.

DESCRIPTION

This Service Bulletin contains instructions for the inspection of the fillet weld between the nose gear strut and wheel spindle, and replacement of the nose gear strut.

WARRANTY INFORMATION

Cirrus Design will cover parts and labor costs for this Service Bulletin if the work is accomplished within the next 12 calender months and the work is accomplished at an authorized Cirrus Design Service Center. The Warranty Claim Form must be properly filled out and submitted with the removed parts to Cirrus Design in order to obtain a warranty credit.

Cirrus Design Corporation
4515 Taylor Circle
Duluth, Minnesota 55811
PH (218) 727-2737

MANPOWER REQUIREMENTS

Approximately 1.0 manhour is required for inspection.

Approximately 3.5 manhours are required for nose gear strut replacement.

OTHER PUBLICATIONS AFFECTED

SR22 Illustrated Parts Catalog (p/n 13774-001)

SR22 Airplane Maintenance Manual (p/n 13773-001)

WEIGHT AND BALANCE

N/A

MATERIAL INFORMATION

The following parts are required to comply with this Service Bulletin. Parts can be obtained from Cirrus Design Spare Part Sales or an authorized Cirrus Design Service Center. Order Kit P/N 70082-001.

Item No.	Description	P/N or Spec.	Supplier	Quantity
1	Service Bulletin	SB 2X-32-10 R1	Cirrus Design	1
2	Nose Landing Gear Assembly	14082-004	Cirrus Design	1
3	Cotter Pin	MS24665-355	Cirrus Design	1
4	Nut	MS17826-8	Cirrus Design	1
5	Washer	NAS1149F0863P	Cirrus Design	5
6	Belleville Spring Washer	50750-101	Cirrus Design	4
7	Washer	AN970-8	Cirrus Design	1
8	Bolt	NAS6608H5	Cirrus Design	2
9	Spacer	13705-003	Cirrus Design	2
10	Washer	NAS1149F1032P	Cirrus Design	4
11	Bolt	NAS6608-10D	Cirrus Design	2
12	Spacer	13705-004	Cirrus Design	2
13	Nut	AN320-8	Cirrus Design	2
14	Cotter Pin	MS24665-285	Cirrus Design	2

ACCOMPLISHMENT INSTRUCTIONS

A. Remove key from ignition.

B. Ensure BATTERY and AVIONICS master switches are in OFF position.

C. Remove nose gear fairing. (See Figure 01)

1. Turn nose wheel to full 108 degree deflection.
2. Cut and remove safety wire securing hinge pin to strut fairing and pull hinge pin from strut fairing.
3. Remove screws securing strut fairing to nose gear strut and remove strut fairing from airplane.

4. Remove towing lugs from nose wheel assembly.
5. Remove wheel pant assembly.
   a. Remove screws securing forward wheel pant to aft wheel pant and remove forward wheel pant.
   b. Remove screws securing aft wheel pant to nose wheel assembly and remove aft wheel pant from airplane.

CAUTION: If there is any evidence of cracking or deformation in the area around the fillet weld the nose gear strut assembly must be replaced immediately.

D. Visually inspect the fillet weld between the nose gear strut and wheel spindle in accordance with FAA AC 43.13-1B, Chapter 5, Section 2, Visual Inspection.

1. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Flashlight	-	Any Source	Inspect fillet weld.
10X Magnifier	-	Any Source	Inspect fillet weld.

2. Using flashlight and 10X magnifier, visually inspect fillet weld for signs of distress.
   a. Verify there is no evidence of cracking in paint on or around surface of fillet weld.
   b. Verify there is no evidence of deformation in nose gear strut on or around surface of fillet weld.

E. If no cracking or deformation is evident, the nose gear strut replacement can be deferred up to the next annual inspection. Perform the following steps:

1. Perform Procedure - Nose Gear Fairing Installation.
2. Send completed warranty claim form to Cirrus Design Customer Service and complete airplane records by noting compliance with SB 2X-32-10 R1 in Aircraft Logbook.

F. If cracking or deformation is evident, the nose gear strut must be replaced immediately. Perform the following steps:

1. Remove engine cowling. (Refer to AMM 71-10)
2. Raise airplane on jacks. (Refer to AMM 7-10)
3. Remove nose wheel fork assembly. (See Figure 02)
   a. While supporting fork assembly, remove cotter pin, nut, flat washers, and Belleville washers from spindle bolt.
   b. Remove fork assembly from nose gear strut.
4. Remove existing nose gear strut. (See Figure 02)
   a. With nose gear strut supported, remove bolts, washers, and spacers securing nose gear strut to lower puck pan.
   b. Remove cotter pins, nuts, washers, spacers, and bolts securing nose gear strut to lower engine mount.
   c. Lower nose gear strut to ground.

5. Install new nose gear strut. (See Figure 02)
   a. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Grease	ASG22	Aeroshell	Lubrication.
Safety Wire	-	Any Source	Secure nose gear strut bolts.

   b. With nose gear strut supported under airplane, lift strut up until bolt holes are in proper alignment with engine mount.
   c. Apply a thin coat of grease to new bolt shafts (NAS6608-10D) and spacers (13705-003).
   d. Install new bolts (NAS6608-10D), spacers (13705-003), washer (NAS1149F1032P), washer (NAS1149F0863P), and nuts (AN320-8) securing nose gear strut to lower engine mount attach fittings.
   e. At RH and LH lower engine mount attach fittings, measure gap between spacer and engine mount. Add RH and LH gap values together to obtain total gap. Reference total gap in the following table to determine if additional washers (NAS1149F1032P) are required.

Total Gap	Number of Additional Washers
Less than 0.125 (3.2 mm)	None.
0.125 - 0.250 (3.2 - 6.4 mm)	1 each side.
0.250 and 0.375 inch (6.4 and 9.5 mm)	2 each side.
Greater than 0.375 inch (9.5 mm)	Contact Cirrus Design for disposition.

   f. Torque nuts to 480 - 690 in-lb (53 - 76 Nm) and install new cotter pins (MS24665-285).
   g. Install new bolts (NAS6608H5), washers (NAS1149F0863P), and spacers (13705-004) securing nose gear strut to lower puck pan. Torque bolts to 480 - 690 in-lb (53 - 76 Nm). Safety wire bolts to nose gear strut.
6. Install nose wheel fork assembly. (See Figure 02)
   a. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Grease	ASG22	Aeroshell	Lubrication.
Isopropyl Alcohol	TT-I-735 Grade A or B	Any Source	Cleaning agent.
Calibrated Spring Scale	5A354	Chatillon Kew Gardens, NY 11415 718-847-5000	Load determination.

   b. Remove contaminates from spindle threads using wire brush and isopropyl alcohol.
   c. Place nose wheel fork assembly into installation position.

CAUTION: Ensure Teflon coating (dark grey color) on thrust washer faces upward.

Ensure Belleville washers are installed in correct orientation. Failure to comply with this caution may result in nose wheel shimmy.

Do not allow grease to come in contact with spindle cup or nose wheel fork bushings. Failure to comply with this caution may result in nose wheel shimmy.

d. Install new washer (AN970-8), Belleville washers (50750-101), and washer (NAS1149F0863P) in correct orientation.
e. Secure nose wheel fork assembly with new castellated spindle nut (MS17826-8).
f. Attach spring scale to axle on nose wheel fork assembly and torque castellated spindle nut so a constant force of more than 49 lbs (22.2 kg) is required to rotate nose wheel fork and wheel assembly.
g. Loosen castellated spindle nut.
h. Attach spring scale to axle on nose wheel fork assembly and torque castellated spindle nut so a constant force of 20 - 25 lbs (9.1 - 11.3 kg) is required to rotate nose wheel fork and wheel assembly.
i. After re-torquing castellated spindle nut, secure nut with new cotter pin (MS24665-355). Bend cotter around castellated spindle nut as shown. (See Figure 02)

CAUTION: Do not allow grease to come in contact with spindle bearing surface or nose wheel fork bushings. Failure to comply with this caution may result in nose wheel shimmy.

j. Apply a thin coat of grease to exposed spindle threads.

7. Remove airplane from jacks. (Refer to AMM 7-10)
8. Install engine cowling. (Refer to AMM 71-10)

G. Perform Procedure - Nose Gear Fairing Installation.

H. Send completed warranty claim form to Cirrus Design Customer Service and complete airplane records by noting compliance with SB 2X-32-10 R1 in Aircraft Logbook.

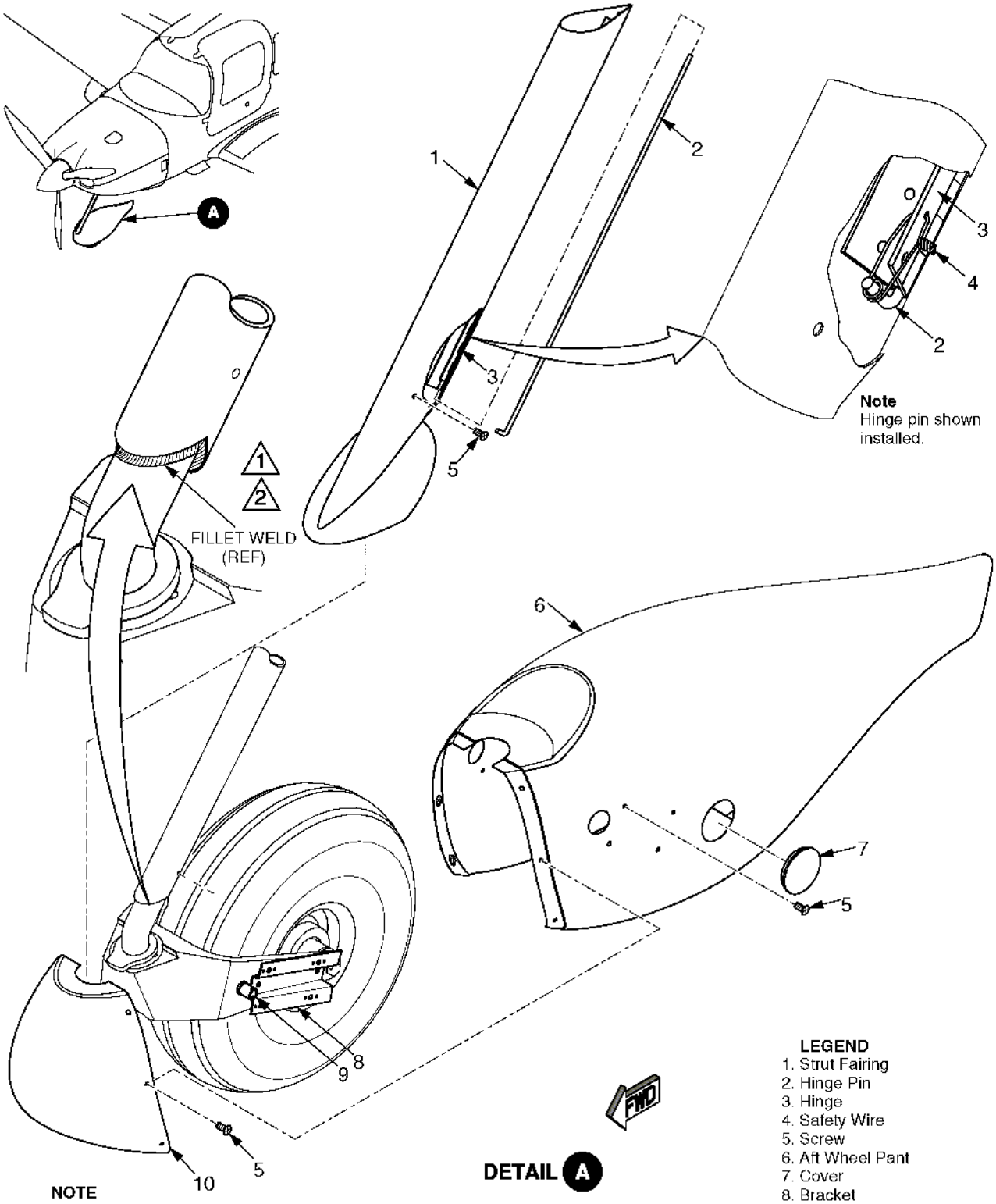
I. Procedure - Nose Gear Fairing Installation. (See Figure 01)

1. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Safety Wire	-	Any Source	Secure hinge pin.
Loctite®	222	Any Source	Secure strut fairing screws.

2. Turn nose wheel to full 108 degree deflection.
3. Pry trailing edge seam of strut fairing open and position strut fairing around nose gear strut.
4. From bottom of strut fairing, insert and slide hinge pin into hinge bodies until hinge pin is fully inserted and seated.
5. Secure hinge pin to strut fairing with safety wire.
6. Apply Loctite to strut fairing screws. (Refer to AMM 20-40)
7. Install screws securing strut fairing to nose gear strut.

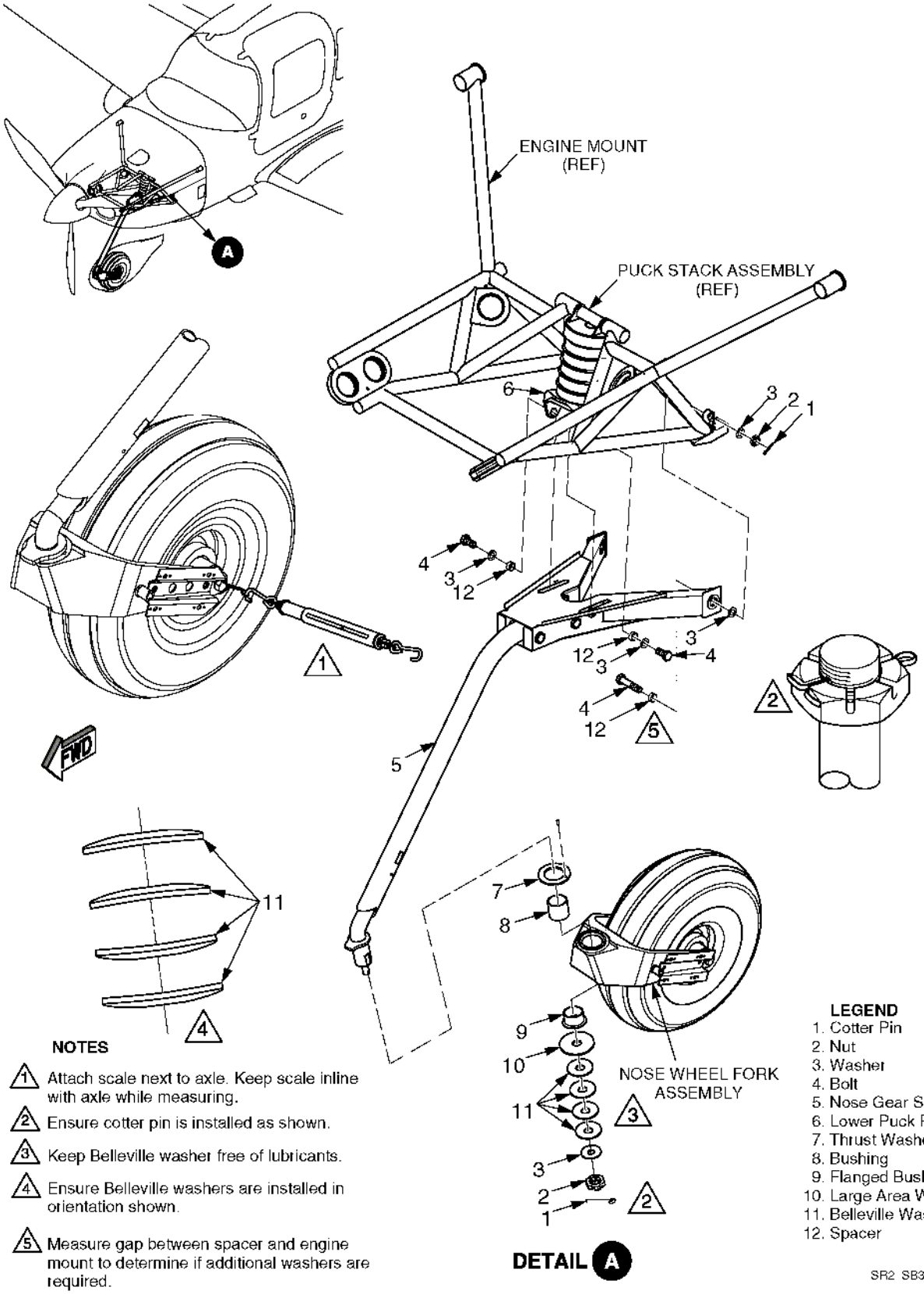
8. Install wheel pant assembly.
   a. Place aft wheel pant in proper alignment with nose wheel assembly and install screws.
   b. Place forward wheel pant in proper alignment with aft wheel pant and apply light force to mate the wheel pants together.
   c. Install screws along nose pant seam.
9. Install towing lugs to nose wheel assembly.
10. Rotate nose wheel assembly to ensure there is no interference through caster travel.



NOTE

1. Using flashlight and 10X magnifier, ensure there is no evidence of cracking in paint on or around surface of fillet weld.
2. Using flashlight and 10X magnifier, ensure there is no evidence of deformation in strut on or around surface of fillet weld.

Figure 01 - Nose Gear Strut Inspection



NOTES

1. Attach scale next to axle. Keep scale inline with axle while measuring.
2. Ensure cotter pin is installed as shown.
3. Keep Belleville washer free of lubricants.
4. Ensure Belleville washers are installed in orientation shown.
5. Measure gap between spacer and engine mount to determine if additional washers are required.

LEGEND

1. Cotter Pin
2. Nut
3. Washer
4. Bolt
5. Nose Gear Strut
6. Lower Puck Pan
7. Thrust Washer
8. Bushing
9. Flanged Bushing
10. Large Area Washer
11. Belleville Washer
12. Spacer

Figure 02 - Nose Gear Strut Installation

Service Loop

Publications Change Request and Evaluation Form

Use this form to submit a Publications Change Request to our Engineering Department and/or to tell us what you think of the quality of this publication. We will use the data you provide us to improve the quality of our technical publications.

Contact Information:

Organization: _____ Today's Date: _____

Address: _____ Telephone No.: _____

City/ST/Zip: _____ Fax No: _____

Prepared By: _____ E-Mail: _____

Title: _____

Publication Type:

Airplane Model: _____ Publication Part Number: SB 2X-32-10 R1

Title of Publication: NLG Inspection and Replacement Publication Date (See Cover Page): _____

Location of Publication Change Request:

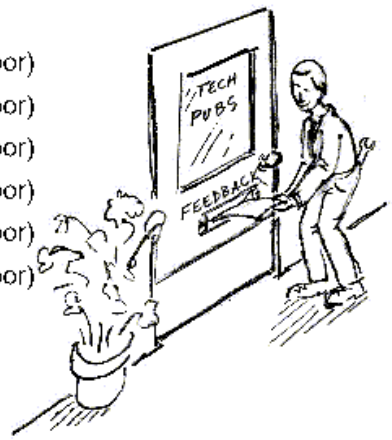
Chapter Number: _____ Section Number: _____ Figure No (IPC or WM only): _____

Page Number: _____ Page Date: _____ Illustration Number (if applicable): _____

Please consider the following suggestions for change:

Evaluation:

Please rate the quality of this publication.	(good)	4	3	2	1	(poor)
Please rate the quality of the illustrations.	(good)	4	3	2	1	(poor)
Is this publication easy to understand?	(good)	4	3	2	1	(poor)
Is this publication easy to use?	(good)	4	3	2	1	(poor)
Are the Material and Accomplishment Instructions accurate?	(good)	4	3	2	1	(poor)
Is the Manpower estimate accurate?	(good)	4	3	2	1	(poor)



Fax or mail this form to Cirrus Design Corporation:

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PH (218) 727-2737
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Cirrus Design Corp
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Duluth, MN
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STAMP

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Service Bulletin

SB 2X-32-11

Issued: 08 Aug 2005

Models SR20

ATA 32-20: Nose Landing Gear
Nose Gear Strut Inspection and Replacement

COMPLIANCE

Mandatory: Cirrus Design considers this Service Bulletin to be MANDATORY. Accomplish this Service Bulletin within the next 50 flight hours. Compliance time begins upon receipt of this Service Bulletin.

EFFECTIVITY

Cirrus Design SR20 Nose Landing Gear Serial Numbers 1003 through 1156. This part was delivered on Cirrus Design SR20 serial numbers 1279 thru 1282, 1297 thru 1301, 1307 thru 1316, 1319 thru 1321, 1324 thru 1330, 1332 thru 1439 and installed as a spare replacement on other aircraft.

APPROVAL

FAA approval has been obtained on all technical data in this Service Bulletin that affects type design.

PURPOSE

Cirrus Design recently made a supplier change for the manufacturing of its nose landing gear strut assembly. During the transition to the new manufacturer, process changes may have affected the reliability of this assembly at higher loads. Failure of this assembly could result in separation of the nose wheel and fork from the strut after a hard landing.

This Service Bulletin is being issued to require inspection of the assembly on all affected aircraft to determine if the gear must be replaced immediately or if the replacement can be deferred up to the next annual inspection.

DESCRIPTION

This Service Bulletin contains instructions for the inspection of the fillet weld between the nose gear strut and wheel spindle, and replacement of the nose gear strut.

WARRANTY INFORMATION

Cirrus Design will cover parts and labor costs for this Service Bulletin if the work is accomplished within the next 12 calender months and the work is accomplished at an authorized Cirrus Design Service Center. The Warranty Claim Form must be properly filled out and submitted with the removed parts to Cirrus Design in order to obtain a warranty credit.

MANPOWER REQUIREMENTS

Approximately 1.0 manhour is required for inspection.

Approximately 3.5 manhours are required for nose gear strut replacement.

Cirrus Design Corporation
4515 Taylor Circle
Duluth, Minnesota 55811
PH (218) 727-2737

OTHER PUBLICATIONS AFFECTED

SR20 Illustrated Parts Catalog (p/n 12138-001)

SR20 Airplane Maintenance Manual (p/n 12137-001)

WEIGHT AND BALANCE

N/A

MATERIAL INFORMATION

The following parts are required to comply with this Service Bulletin. Parts can be obtained from Cirrus Design Spare Part Sales or an authorized Cirrus Design Service Center. Order Kit P/N 70082-900.

Item No.	Description	P/N or Spec.	Supplier	Quantity
1	Nose Landing Gear Assembly	11907-005	Cirrus Design	1
2	Cotter Pin	MS24665-353	Cirrus Design	1
3	Nut	MS17826-8	Cirrus Design	1
4	Washer	NAS1149F0863P	Cirrus Design	1
5	Belleville Spring Washer	50750-101	Cirrus Design	4
6	Washer	AN970-8	Cirrus Design	1
7	Bolt	NAS6206-26D	Cirrus Design	2
8	Washer	NAS1149F0632P	Cirrus Design	4
9	Spacer	12935-001	Cirrus Design	2
10	Nut	AN320-6	Cirrus Design	2
11	Cotter Pin	MS24665-283	Cirrus Design	3
12	Bolt	AN6-64	Cirrus Design	1
13	Washer	NAS1149F0663P	Cirrus Design	3
14	Nut	AN310-6	Cirrus Design	1

ACCOMPLISHMENT INSTRUCTIONS

A. Remove key from ignition.

B. Ensure BATTERY and AVIONICS master switches are in OFF position.

C. Perform Aircraft Logbook inspection to determine serial number of installed strut.

1. If nose gear strut serial number falls within 1003 through 1156 range, perform remainder of Service Bulletin.
2. If nose gear strut serial number falls outside 1003 through 1156 range, no further action is required. Send completed warranty claim form to Cirrus Design Customer Service and complete airplane records by noting compliance with SB 2X-32-11 in Aircraft Logbook.

D. Remove nose gear fairing. (Refer to AMM 32-20)

CAUTION: If there is any evidence of cracking or deformation in the area around the fillet weld the nose gear strut assembly must be replaced immediately.

E. Visually inspect the fillet weld between the nose gear strut and wheel spindle in accordance with FAA AC 43.13-1B, Chapter 5, Section 2, Visual Inspection.

1. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Flashlight	-	Any Source	Inspect fillet weld.
10X Magnifier	-	Any Source	Inspect fillet weld.

2. Using flashlight and 10X magnifier, visually inspect fillet weld for signs of distress.
   a. Verify there is no evidence of cracking in paint on or around surface of fillet weld.
   b. Verify there is no evidence of deformation in nose gear strut on or around surface of fillet weld.

F. If no cracking or deformation is evident, the nose gear strut replacement can be deferred up to the next annual inspection. Perform the following steps:

1. Install nose gear fairing. (Refer to AMM 32-20)
2. Send completed warranty claim form to Cirrus Design Customer Service and complete airplane records by noting compliance with SB 2X-32-11 in Aircraft Logbook.

G. If cracking or deformation is evident, the nose gear strut must be replaced immediately. Perform the following steps:

1. Remove engine cowling. (Refer to AMM 71-10)
2. Raise airplane on jacks. (Refer to AMM 7-10)
3. Remove nose wheel fork assembly.
   a. While supporting fork assembly, remove cotter pin, nut, flat washers, and Belleville washers from spindle bolt.
   b. Remove fork assembly from nose gear strut.
4. Remove existing nose gear strut.
   a. With nose gear strut supported, remove cotter pin, nut, washers, and bolt securing nose gear strut to lower puck pan.
   b. Remove cotter pins, nuts, washers, spacers, and bolts securing nose gear strut to lower engine mount.
   c. Lower nose gear strut to ground.
5. Install new nose gear strut.
   a. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Grease	ASG22	Aeroshell	Lubrication.

   b. With nose gear strut supported under airplane, lift strut up until bolt holes are in proper alignment with engine mount.
   c. Apply a thin coat of grease to new spacers (12935-001).

Note: Additional washers may be installed between nose gear strut and engine mount as required to eliminate any gap. Two washers per side maximum.

d. Install new bolts (NAS6206-26D), spacers (12935-001), washers (NAS1149F0632P), and nuts (AN320-6) securing nose gear strut to lower engine mount. Torque nuts to 80 - 95 in-lb (9.0 - 10.7 Nm) and install new cotter pins (MS24665-283).

e. Apply a thin coat of grease to new bolt shaft (AN6-64).

f. Install new bolt (AN6-64), washers (NAS1149F0663P), and nut (AN310-6) securing nose gear strut to lower puck pan. Torque bolt to 80 - 95 in-lb (9.0 - 10.7 Nm) and install new cotter pin (MS24665-283).

6. Install nose wheel fork assembly.

a. Acquire necessary tools, equipment, and supplies.

Description	P/N or Spec.	Supplier	Purpose
Grease	ASG22	Aeroshell	Lubrication.
Isopropyl Alcohol	TT-I-735 Grade A or B	Any Source	Cleaning agent.
Calibrated Spring Scale	5A354	Chatillon Kew Gardens, NY 11415 718-847-5000	Load determination.

b. Remove contaminates from spindle threads using wire brush and isopropyl alcohol.

c. Place nose wheel fork assembly into installation position.

CAUTION: Ensure Teflon coating (dark grey color) on thrust washer faces upward.

Ensure Belleville washers are installed in correct orientation. Failure to comply with this caution may result in nose wheel shimmy.

Do not allow grease to come in contact with spindle cup or nose wheel fork bushings. Failure to comply with this caution may result in nose wheel shimmy.

d. Install new washer (AN970-8), Belleville washers (50750-101), and washer (NAS1149F0863P) in correct orientation.

e. Secure nose wheel fork assembly with new castellated spindle nut (MS17826-8).

f. Attach spring scale to axle on nose wheel fork assembly and torque castellated spindle nut so a constant force of more than 49 lbs (22.2 kg) is required to rotate nose wheel fork and wheel assembly.

g. Loosen castellated spindle nut.

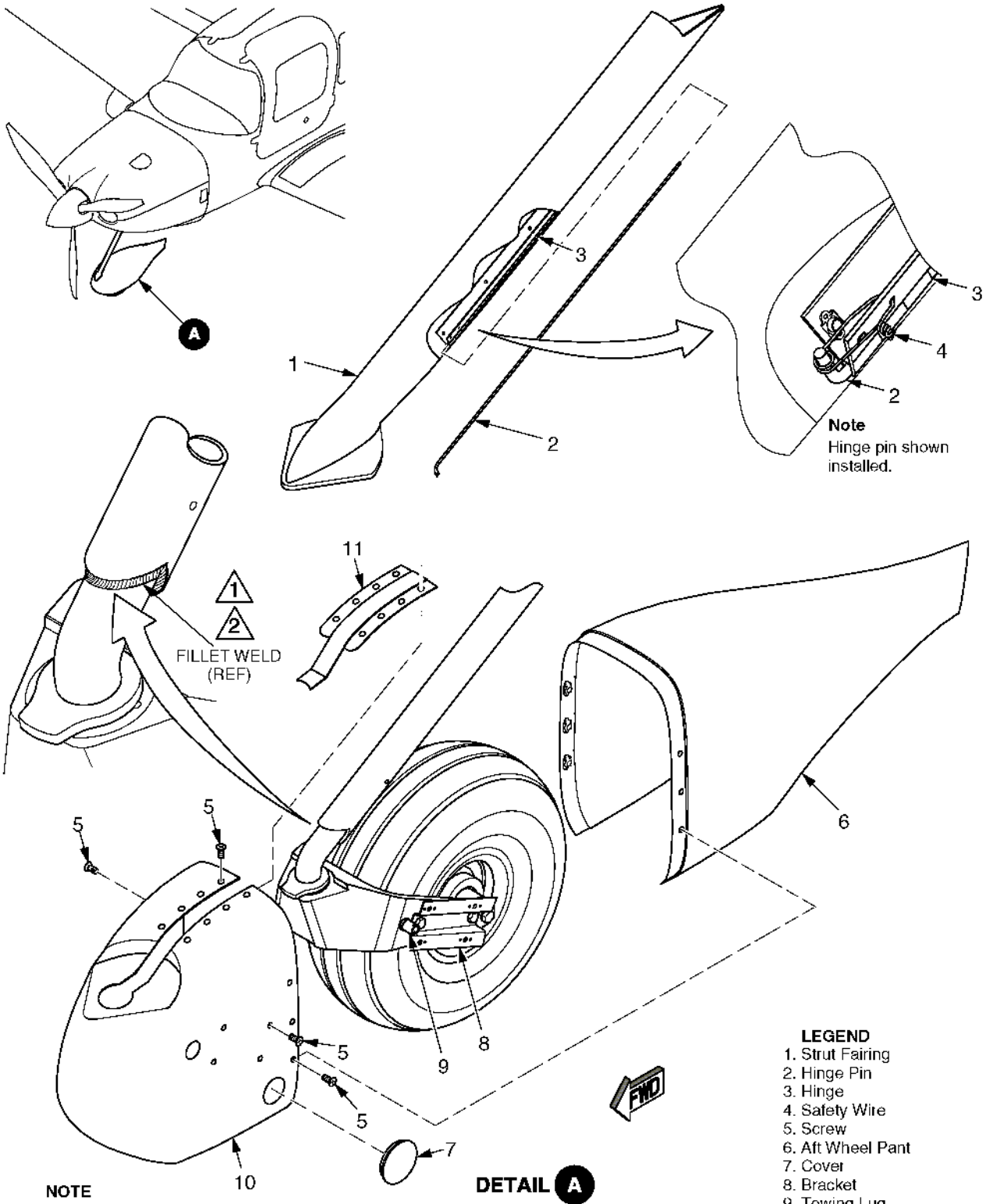
h. Attach spring scale to axle on nose wheel fork assembly and torque castellated spindle nut so a constant force of 20 - 25 lbs (9.1 - 11.3 kg) is required to rotate nose wheel fork and wheel assembly.

i. After re-torquing castellated spindle nut, secure nut with new cotter pin (MS24665-353). Bend cotter around castellated spindle nut as shown. (See Figure 02)

CAUTION: Do not allow grease to come in contact with spindle bearing surface or nose wheel fork bushings. Failure to comply with this caution may result in nose wheel shimmy.

j. Apply a thin coat of grease to exposed spindle threads.

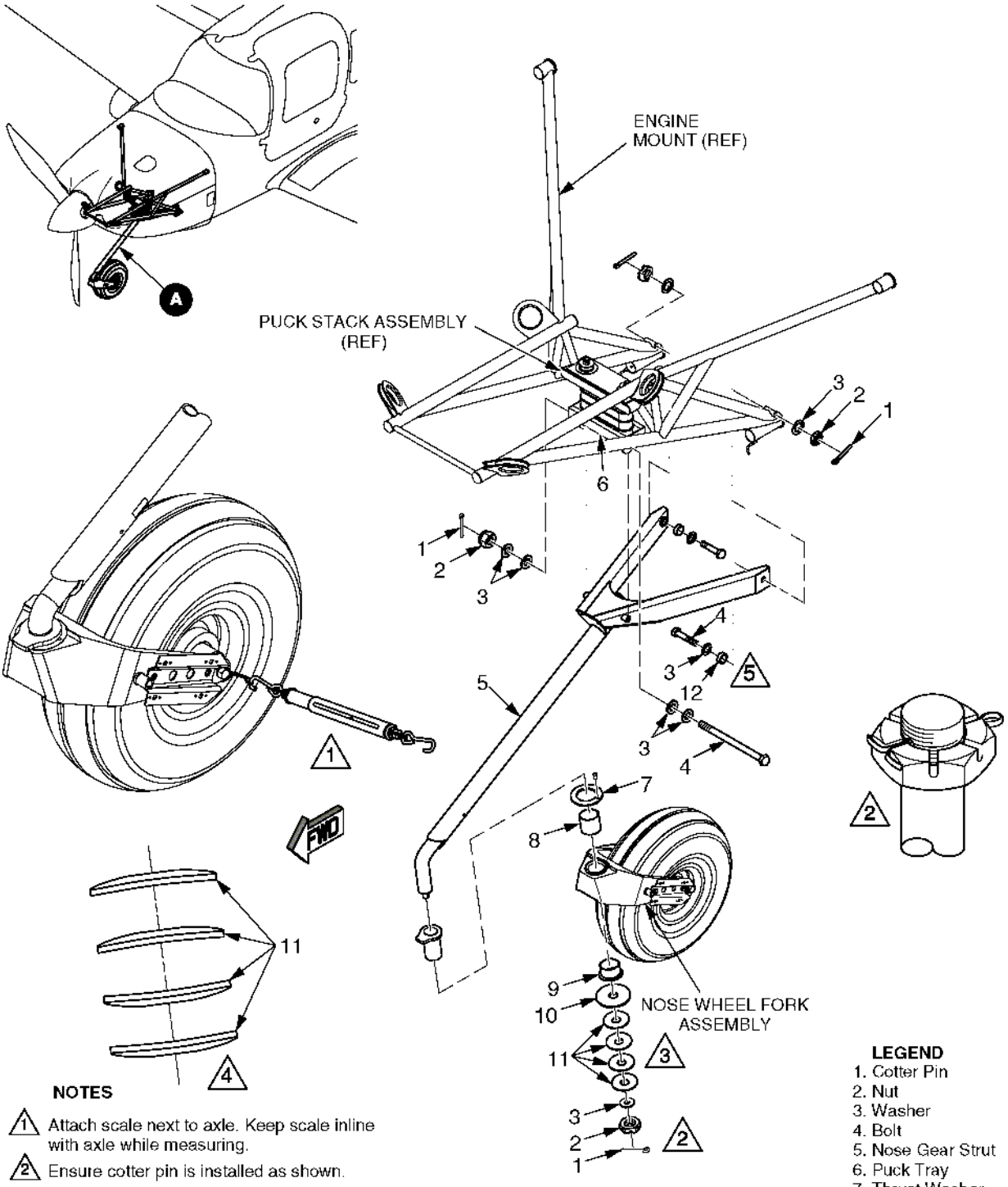
7. Remove airplane from jacks. (Refer to AMM 7-10)
8. Install engine cowling. (Refer to AMM 71-10)
9. Install nose gear fairing. (Refer to AMM 32-20)
10. Send completed warranty claim form to Cirrus Design Customer Service and complete airplane records by noting compliance with SB 2X-32-11 in Aircraft Logbook.



NOTE

1. Using flashlight and 10X magnifier, ensure there is no evidence of cracking in paint on or around surface of fillet weld.
2. Using flashlight and 10X magnifier, ensure there is no evidence of deformation in strut on or around surface of fillet weld.

Figure 01 - Nose Gear Strut Inspection



NOTES

1. Attach scale next to axle. Keep scale inline with axle while measuring.
2. Ensure cotter pin is installed as shown.
3. Keep Belleville washer free of lubricants.
4. Ensure Belleville washers are installed in orientation shown.
5. Additional washers may be installed between nose gear strut and engine mount as required to eliminate any gap. Two washers per side maximum.

LEGEND

1. Cotter Pin
2. Nut
3. Washer
4. Bolt
5. Nose Gear Strut
6. Puck Tray
7. Thrust Washer
8. Bushing
9. Flanged Bushing
10. Large Area Washer
11. Belleville Washer
12. Spacer

DETAIL A

SR2 SB32 1114

Figure 02 - Nose Gear Strut Installation

Service Loop

Publications Change Request and Evaluation Form

Use this form to submit a Publications Change Request to our Engineering Department and/or to tell us what you think of the quality of this publication. We will use the data you provide us to improve the quality of our technical publications.

Contact Information:

Organization: _____ Today's Date: _____

Address: _____ Telephone No.: _____

City/ST/Zip: _____ Fax No: _____

Prepared By: _____ E-Mail: _____

Title: _____

Publication Type:

Airplane Model: _____ Publication Part Number: SB 2X-32-11

Title of Publication: NLG Inspection and Replacement Publication Date (See Cover Page): _____

Location of Publication Change Request:

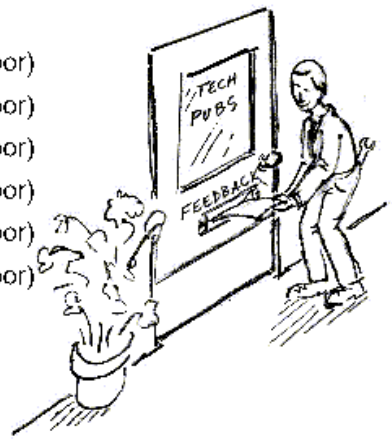
Chapter Number: _____ Section Number: _____ Figure No (IPC or WM only): _____

Page Number: _____ Page Date: _____ Illustration Number (if applicable): _____

Please consider the following suggestions for change:

Evaluation:

Please rate the quality of this publication.	(good)	4	3	2	1	(poor)
Please rate the quality of the illustrations.	(good)	4	3	2	1	(poor)
Is this publication easy to understand?	(good)	4	3	2	1	(poor)
Is this publication easy to use?	(good)	4	3	2	1	(poor)
Are the Material and Accomplishment Instructions accurate?	(good)	4	3	2	1	(poor)
Is the Manpower estimate accurate?	(good)	4	3	2	1	(poor)



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